



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION - ZOOLOGY

SECOND SEMESTER – APRIL 2013

ZO 2815 - BIOPHYSICS

Date : 29/04/2013

Dept. No.

Max. : 100 Marks

Time : 9:00 - 12:00

PART- A

Answer ALL the questions

(10×2=20 Marks)

1. What is Fick's law?
2. Explain PAGE and TLC.
3. Write a short note on quantum theory.
4. Distinguish entropy from enthalpy.
5. What are Antigens?
6. Write any two applications of UV radiation.
7. Define Isoelectric point.
8. What is circular dichroism?
9. Define surface tension.
10. Comment on viscosity.

PART- B

Answer any FOUR

(4x10=40 Marks)

11. Write a paragraph on circular paper chromatography.
12. Give an account of NMR.
13. Compile the medical and biological uses of X rays.
14. Explain in detail the electron spin resonance.
15. Write a paragraph on Brownian movement.
16. Explain in detail the Geiger Muller counter.

PART- C

Answer any TWO

(2×20=40 Marks)

17. a) What are laws of thermodynamics?
b) Explain the principles of thermodynamics.
18. a) What are LASERS?
b) Write an essay on the principle and applications.
19. a) What are centripetal and centrifugal forces?
b) Elaborate the principle, types and applications of centrifuge.
20. a) What is Donnan's equilibrium ?
b) Discuss in detail the physical laws in living systems.
